
	Hashemite University	
	Prince Al-Hussein bin Abdullah II Faculty for Information Technology	
	Department of Software Engineering	

## Course Syllabus

**Year: 2018-2019**

**Semester: (2)**

Course No.	Course Title	Designation	Prerequisite	Co-requisite	Credit Hours Lectures /Lab.
111003260	Fundamentals of Software Engineering	Compulsory	111001110	-	3 / 0

Instructor Name	E-mail	Office No.	Office ext.	Office Hours
Dr. Abdel-Rahman Al-Ghuwairi	<a href="mailto:ghuwairi@hu.edu.jo">ghuwairi@hu.edu.jo</a>		4591	Sun, Tue, Thur (10-11)
Dr. Aladdin Baarah	<a href="mailto:aladdin.baarah@hu.edu.jo">aladdin.baarah@hu.edu.jo</a>	246	4786	Sun, Tue, Thur (10-11)

<b>Coordinator's Name:</b>	Dr. Abdel-Rahman Falah Aqil Al-Ghuwairi
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<b>Course Description</b>	This course covers the software development process, from requirements elicitation and analysis, through specification and design, to implementation, integration, testing, and maintenance (evolution). A variety of concepts, principles, techniques, and tools are presented, encompassing topics such as software processes, software requirements, system models, architectural design, user interface design, verification and validation, and software evolution.
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### Learning References:

<b>a- Textbook:</b>
1. Software Engineering (10 <sup>th</sup> Edition). Ian Sommerville, Addison Wesley, 2015
<b>b- Additional References:</b>
1. Software Engineering: A Practitioner's Approach (8 <sup>th</sup> Edition), Roger PressMan and Bruce Maxim, McGraw-Hill Education, 2014
2. Software Engineering: Principles and Practice (3 <sup>rd</sup> Edition). Hans van Vliet, Wiley, 2008

## Course Learning Outcomes (CLOs)

Upon successful completion of this course, students are expected to achieve the following learning outcomes:

Course Learning Outcomes (CLOs)
1- <b>Understand</b> essential concepts in software engineering. (1)
2- <b>Explain</b> the major concepts of requirement engineering process. (1,3)
3- Be able to <b>apply</b> (UML) as a modeling technique in software engineering to design and develop object oriented software. (2,3)
4- <b>Distinguish</b> stages of testing from testing, during software development to acceptance testing by system customers. (2)
5- <b>Demonstrate</b> software evolution processes as an important part of software engineering.(2)
6- <b>Prepare</b> coherent and structured technical report in a group and deliver oral presentation. (3)
Addressed Student Learning Outcomes (SLOs)
(1,2,3)

Topic Details	CLO number	Reference	No. of Weeks	Contact hours*
Introduction	1	Ch1	1	3
Software processes	1	Ch2	1	3
Requirements Engineering	2	Ch4	3	9
System Modeling	3	Ch5	3	9
Design and Implementation	3	Ch7	2	6
Software Testing	4	Ch8	2	6
Software Evolution	5	Ch9	2	6
Project Presentations	6	-	1	3
<b>Total</b>			<b>15</b>	<b>45</b>

## Assessment Methods and Grading System:

Assessment method	Grade	Comments
First Exam	25%	Covers Chapters 1, 2, 4
Second Exam	20%	Covers Chapters 5 and 7
Project	15%	TBA
Final Exam	40%	Covers all topics that were discussed during the semester
<b>Total</b>	<b>100%</b>	